

PATENT  
Serial No. 09/923,610  
Amendment in Reply to Final Office Action of August 25, 2005

IN THE DRAWING

Please replace FIGs 1-2 with the enclosed replacement  
FIGs 1-2.

PATENT  
Serial No. 09/923,610  
Amendment in Reply to Final Office Action of August 25, 2005

REMARKS

Reconsideration of the present application and entry of the present amendment are respectfully requested.

By means of the present amendment, claims 1-5 and 7-9 have been amended to delete reference designations. Claims 1-5 and 7-9 were not amended in order to address issues of patentability and Applicant respectfully reserves all rights they may have under the Doctrine of Equivalents. Applicant furthermore reserves his right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

In the Final Office Action mailed August 25, 2005, the drawings were objected to as lacking descriptive labels for the blocks in the block diagrams. Applicant respectfully asserts that replacement sheet was mailed to the Examiner as an attachment to Applicant's Amendment mailed December 29, 2005 (amendments to Figs. 1 and 2 such that they now include descriptive labels). As noted by the Examiner, the previously mailed replacement sheets are not in the File Wrapper of the present application. Another replacement sheet showing FIGs 1-2 with descriptive labels for the blocks are enclosed herein. Applicant respectfully requests

PATENT  
Serial No. 09/923,610

Amendment in Reply to Final Office Action of August 25, 2005

withdrawal of the drawings objection and approval of the enclosed proposed replacement sheet including FIGs 1-2.

In the Final Office Action, claims 1-5 and 7-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. 6,292,778 (Sukkar) in view of U.S. 6,567,778 (Chao Chang). In response, the following remarks are presented. It is respectfully submitted that claims 1-5 and 7-9 are patentable over Sukkar and Chao Chang for at least the following reasons.

Sukkar is directed to a task-independent utterance verification with subword-based minimum verification error training. A recognition component 312 recognizes individual subwords in the input speed. A work lexicon database of the recognition component 312 contains a data structure describing various pronunciations, in terms of subword symbols, of each work in the system's vocabulary. In conjunction with recognizing a string of subword sounds from the sampled speech, the recognition component 312 consults the lexicon database 318 to determine a word, phrase or sentence in its vocabulary that most likely corresponds to the input speed.

As correctly noted by the Examiner, Sukkar does not teach or

PATENT  
Serial No. 09/923,610

Amendment in Reply to Final Office Action of August 25, 2005

suggest the following recitation of independent claim 1, where a portion of this recitation is also recited in independent claim 8:

storing entries including company names and variants of the company names in a database, the variants including at least one of mix-ups of part of company names, colloquial formulations of company names, abbreviations of company names, and acronyms of company names. (Emphasis added)

Chao Chang is cited in an attempt to remedy this deficiency in Sukkar.

Chao Chang is directed to a natural language speech recognition using slot semantic confidence scores related to their word recognition confidence scores. As recited on column 5, lines 50-56 referring to FIG 1, in step 104, a speech recognizer examines the input speech, identifies each word, and assign a word confidence score to each recognized word. The output of the recognized words along with their associated word confidence scores are provided to a natural language interpreter in step 106.

In step 106, as recited on column 6, lines 39-44, the natural language interpreter forms slots and, in step 108, determines which words are in each slot. In step 110, the word confidence scores are combined for all the words in a slot to form a slot confidence

PATENT  
Serial No. 09/923,610  
Amendment in Reply to Final Office Action of August 25, 2005

score.

As recited on column 6, line 65, to column 7, line 15, the natural language interpreter could fill the slots with actual words. Then smaller subsets of words are systematically sent to the natural language interpreter. The smallest subset of words that can still generate the same slot values are identified as necessary words, such as the identified words of International Business Machines generates IBM, same as International Business Machines Incorporated.

As is evident from the aforementioned and the more detailed description given in Chao Chang, it is respectfully submitted that Chao Chang involves generating results, such as IBM, from identified words based on processing these identified words, such as determining necessary words. Such a determination of necessary words does NOT involve comparing anything with STORED values. Rather, the determination of necessary words involves processing the identified words themselves as described above.

In stark contrast, the present invention as recited in independent claim 1, and similarly recited in independent claim 8, requires:

PATENT  
Serial No. 09/923,610

Amendment in Reply to Final Office Action of August 25, 2005

storing entries including company names and  
variants of the company names in a database, ...  
comparing the word sequence hypothesis with  
the entries which represent company names stored  
in the database. (Emphasis added)

Chao Chang does not even teach or suggest storing variants of company names in a database, let alone comparing the stored variants. These features provide substantial benefits, such as reduced processing time. Rather, Chao Chang involves processing identified words to arrive at a result without storage or comparison of any variants of company names, which requires more processing power and longer processing time. Thus, Chao Chang teaches away from the present invention where variants of company names are stored in a database, and the stored variants are compared to word sequence hypothesis.

Independent Claim 8 recites further patentable features, namely:

finding entries in the database that are at least partially found in the word sequence hypothesis by comparing the word sequence hypothesis with the entries which represent company names stored in the database,  
producing a first probability for each [stored] entry found during the step of comparing, the probability being dependent on the number of words in each of the [stored] entries

PATENT  
Serial No. 09/923,610  
Amendment in Reply to Final Office Action of August 25, 2005

found in the word sequence hypothesis, wherein each word has a weight factor, particularly characteristic words having a large weight factor, the weight factor being taken into account in determining the probability for each entry, and

selecting a company name as a recognition result in dependence on the result of the comparison and probability of each entry.  
([stored] and Emphasis added)

As noted above, Sukkar, Chao Chang, and combination thereof, do not even teach or suggest storing variants of company names in a database and comparing the stored variants, let alone producing a first probability for each stored entry found during the step of comparing, as recited in independent claim 8.

Based on the arguments provided above, it is respectfully submitted that independent claims 1 and 8 are allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-5, 7 and 9 should also be allowed at least based on their dependence from independent claims 1 and 8.

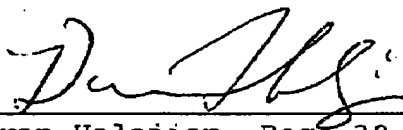
In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of

PATENT  
Serial No. C9/923,610  
Amendment in Reply to Final Office Action of August 25, 2005

argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

By   
Dicran Halajian, Reg. 39,703  
Attorney for Applicant(s)  
October 3, 2005

Enclosure: Replacement drawing sheet (1 sheet with FIGs 1-2)

**THORNE & HALAJIAN, LLP**  
Applied Technology Center  
111 West Main Street  
Bay Shore, NY 11706  
Tel: (631) 665-5139  
Fax: (631) 665-5101